REMARKS/ARGUMENTS

Applicants would like to thank the Examiner for the careful consideration given the present application. In light of the Office Action, the application has been carefully reviewed, and amended as necessary to place the application in condition for allowance.

Claims 1 – 5, 10, and 12 – 16 are amended. Support for all of the amendments can be found, for example, p. 3, ll. 19-36 – p. 6, ll. 1-36.

Claims 1 – 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Sarvar et al. – *Effective Modeling of the Reflow Soldering Process: Basis, Construction, and Operation of a Process Model.* Applicants respectfully disagree for at least the following reasons. Sarvar et al. does not disclose or teach that a first simulation executing step of executing a simulation is based on a first **simulated** condition selected for a first step as recited in amended claims 1 and 14. Rather, Sarvar et al. explicitly states that empirically derived specific heat data are obtained and then used to determine simulated peak temperatures. Therefore, Sarvar et al.'s first condition – specific heat data – is not simulated.

The Office Action states that the specific heat data is simulated and is then used as the first simulation condition in order to obtain a second simulation result: peak temperatures. According to the Office Action, the Examiner contends that the specific heat capacity (Cp) data is not empirically derived but that this data "may be calculated" (i.e., simulated) using an interpolation calculation (e.g., 20080116, p. 5, paragraph 6a). As further support of this assertion, the Office Action states that Applicants have allegedly admitted that a calculation is evidence of a simulation based on claim 3 (or p. 4 of the specification). Applicants respectfully disagree with the Examiner's characterization or interpretation of claim 3.

Amended claim 3 recites that the analysis result data are generated at every step based on a plurality of **simulated** conditions which were previously simulated, and the second simulation executing step executes the simulation of the second step by **executing an interpolation calculation using simulated result data which is simulated** based on a preceding or succeeding condition of the second condition. Thus, in claim 3, the interpolation calculation uses simulated data in order to yield a simulated result in the second simulation step. That is, the data used for the interpolation calculation is not empirically derived as it is in Sarver et al. Sarvar et al. uses empirically derived data in the interpolation calculation, thus yielding empirically derived results or rather results that are based on empirical data. A previous Office Action also acknowledged that Sarvar et al. discloses the calculation of heat capacity values based on empirical results (data) (Paper No. 20080116; p. 2, paragraph 3ii).

The Office Action further cites pp. 9-10 and 18 as teaching that a calculation is the same as a simulation. Applicant respectfully disagrees. The condition data is not limited to simulated condition data unless where specified in the claims. For instance, claim 1 recites a second condition comprising the simulation condition and at least a third condition. Prior to the proposed amendments in this response, this third condition could have been any other condition as discussed in the specification. However, the amendment to claim 15 now defines that the first, second and third conditions are selected from a plurality of simulated conditions. Therefore, this point now appears to be moot since the claims recite the subject matter for which protection is sought.

On p. 132 of Sarvar et al., under paragraph B, Sarvar et al. states that "the model of the populated PCA was constructed using empirically derived Cp values such as those in Fig. 7 ..." Hence, Sarvar et al. makes it abundantly clear that the specific heat data (Cp) is empirically or

experimentally derived or determined and that the peak temperatures are simulated. Thus, for similar reasons as discussed above, Sarvar et al. fails to teach or suggest executing a simulation of the second step based on a second condition, wherein the **second condition comprises the simulation condition and at least a third condition** in order to yield a second simulation result, as recited in the rejected claims.

In addition, claims 1 and 14 recite in part that the first simulation executing step and the second simulation executing step are **each** directed to different and **successive** steps in the plurality of steps composing the mounting process, **wherein the successive steps comprise at least two of printing, mounting and reflow.** By contrast, Sarvar et al., only discloses a simulation of reflow. Thus, Sarvar et al. does not teach or suggest that that the first simulation executing step and the second simulation executing step are each directed to different and successive steps in the plurality of steps composing the mounting process according to claims 1 and 14 and as further defined by claim 20. The simulation result in Sarvar et al. is not provided from a different step to a different step (e.g., MOUNTING to REFLOW).

Claim 13 is amended to clarify that the system includes an inputting portion for inputting a plurality of **simulated** conditions to execute the simulation and ...further that the condition table is formed by using a simulation result simulated based on a first **simulation** condition selected for at least a first step, and a simulation result outputting portion that executes the simulation of the second step based on **simulated** condition data from the condition table and a condition input from the inputting portion and outputs a result to the outputting portion. As discussed above in greater detail, the specific heat data is not simulated but is in fact, explicitly described in Sarvar et al. as being empirically determined or empirically derived. Therefore, each and every element of claim 13 is not anticipated by Sarvar et al.

Hence, Sarvar et al. fails to disclose or teach each and every element as set forth in the claim, and therefore the claimed invention would not have been anticipated by Sarvar et al. Accordingly, the rejection against claims 1 – 19 should be withdrawn.

In light of the foregoing, it is respectfully submitted that the present application is in condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. NGB-36409.

Respectfully submitted,
PEARNE & GORDON, LLP

By: Deborah L. Corpus
Deborah L. Corpus – Reg. No. 47,753

1801 East 9th Street
Suite 1200
Cleveland, Ohio 44114-3108
(216) 579-1700

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